

H/a



THE *W. Herbert, 1770.*
 ART OF DRAVING
 VVITH THE PEN, AND LIM-
 MING IN WATER COLOVRS, MORE
 EXACTLIE THEN HERETOFORE TAUGHT
 and enlarged: with the true manner of Painting vpon glasse,
 the order of making your furnace, Annealing, &c.

Published,
 For the behoofe of all young Gentlemen, or any els that
 are desirous for to become practitioners in this
 excellent, and most ingenious Art,

By H. PECHAM, Gent.

$$\begin{aligned} x + \frac{a}{2} \\ x + \frac{a}{2} \\ xx + \frac{ax}{2} + \frac{aa}{4} \\ xx + ax + \frac{aa}{4} \end{aligned}$$



$$\begin{aligned} x - \frac{a}{2} \\ x - \frac{a}{2} \\ xx - \frac{ax}{2} - \frac{ax}{2} + \frac{aa}{4} \\ xx - ax + \frac{aa}{4} \end{aligned}$$

At London, Printed by Richard Braddock, for William Jones, and
 are to be sold at his shop at the signe of the Gun,
 neere Holburn Conduit. 1606.

399.
 A. p. 434.

THE
DRAWING
PEN AND
MORE
EXPLAINED
IN THE
LATEST
EDITION
OF THE
DRAWING
PEN AND
MORE
EXPLAINED

THE
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THE
DRAWING
PEN AND
MORE
EXPLAINED



TO THE RIGHT WORSHIPFUL SIR

Robert Cotton Knight.



*Ir, it hath bin vsuall aswel among
Heathen in erecting their profane
monuments, as Christians in dedi-
cating their churches, to affect and
chuse among many, some one saint
tanquā numen tutelare aboue the rest: in whose
honor when they had finished the maine worke, yet
they thought not all wel, except his picture stood en-
shrined ouer the porch, or some other more eminent
place. (Though with a number more of my time I ne-
uer dremt of any thing lesse the building churches)
I imitate them so far, (if it be not superstition,) to
chuse my Patrone whose name in the depth of an ho-
nest zeale, I carue in operis vestibulo, as Lipsius
saith; although in this case deuotion be liable to none
account, I confes though I had neuer bin obliged vn-
to you for some particular fauors; yet the loue you
bear to the arts aboue any other I know, shold haue
enforced my Genius to haue awaked, & sought you
out wheresoeuer: not that I thinke so weak a present
either worthy of your view, or so vntoward a iour-
ney,*

The Epistle Dedicatory

ney, but (as it falleth out among pilgrimes) while others of farre better merit, in zeale of your name hang vpon their gownes or bracelets, I mighte sliely escape with my candle: and in truth I bring no better; for imparting to manie what I haue, not hindering my selfe, I doe but accendere lumen de lumine as one saith.

How necessarie a skill drawing or painting is; & howe manie waies the vse thereof is required, none knoweth better then your selfe: how rare the perfection of it amongst vs, euery man may perceiue, when scarce England can affoord vs a perfect penman or good cutter, (I speak not of the pencil wherein our Maisters may compar. with any els in Europe) in respect of the dutchmen and other straungers: for which cause (as well to encorage as instruct any young practitioner that bereth good wil to this arte) I haue collected as familiarly as I could, the chiefe and most easie groundes of drawing, annexing hereto the māner of limming in water colors, also certaine rules for Annealing & painting vpon glasse: which with my self, and my hereafter more serious endeauours, I offer to the censure of your worship, of whome I humbly take my leaue. From my studie in Kimbalton this eighth of Nouember.

Who is sincerely deuoted vnto you.

HENRY PECHAM.



To the Reader.



GENTLEMEN, you haue heer
a few principles of mine art, which
as franckly I impart vnto you, as
the heauens freely bestowed them
vpon my selfe: I cal it mine, because
it was borne with me, nor euer vsed
I the benefit of any instructor saue mine owne prac-
tise and experience. I haue (it is true) bestowed many
idle howers in it, which perhaps might haue beene
worse spent, yet in my iudgment I was neuer so wed-
ded vnto it, as to hold it any part of my profession,
but rather allotted it the place *inter splendidas nugas*,
and those things of accomplement required in a
Scholler or Gentleman. I speak not any whit to dis-
grace so worthy a skill, or to discommend the true &
necessarie vse therof, but to giue my scholler a watch
word, that like a simple wooer hee should neuer cast
off the mistres to court the maid: but esteem him-
selfe a great deale better graced by propounding at
the table *aliquid cedro dignum*, (as K. *Alphonfus* was
merily wont to say,) or maintaining an argument in
Philosophy or diuinity, the by intimating his skil with
the pencil, or insight in the Chords of musick, which
perhaps he that holds a trencher at his back cā excel
him

The Epistle

*Fidibus pra-
clare ceci-
nisse dicitur.
Tuse, Q. li. I*

*Xenoph. lib.
ult. Rer.
græc.*

Politic. 8.

him in *Q. Fabius* could paint, yet hee was a greate counsellor. *Epaminondas* could playe or sing excellently to the Harpe or violls, but *Iustine* to his true glory addeth, that he was a man endued with such learning, and so great experience in military affairs, that it was a wonder how he could attaine to so absolute an heighth in both: in whom alone, and at once sprang vp and died the glory of the Thebanes. *Socrates* being aboute three score yeeres of age, spent one howr in a day with *Conus* a musitian in playing vpon the organes: If he had spent aboute, I thinke we had not known him by the name of *Philosophorum parens*: And whereas *Aristotle* desaigning 4 principall exercises, wherein hee would haue all children in a well tuned city or commonwealth brought vp & taught, (which are *Grammaticæ*, or Grammer: *Gymnasticæ* or exercising the body by wrestling, running, swimming tossing the pike, &c: *Graphicæ*, or well handling the pen in drawing, writing faire, &c: and lastly *Musice* or Musick) his meaning is, *ut adseria magis studia capeSSenda idonei reddantur*: the same vse and none other I wish to be made of drawing.

Concerning these directions I haue giuen, they are such as I thought in respect of their breuity & plainnesse, fit for the capacity of the young learner, for whom they were first and principally intended: they are mine owne, not borrowed out of the shops, but the very same, Nature acquainted mee withall; and such as euer in practise I found most easie and true. I may perhaps be snarled at by some obscure fellows that affect their own priuate gaine before a generall commodity: but if (Reader) thou shalt find any thing here-

to the Reader.

herein worthy thy practise or liking, I care not what the other say; the worst hurt they can doe me, is to draw my picture ilfavouredly, and sell it: And perhaps *Plin. lib. 36. cap. 5.* I could requite them againe as *Hipponax* the Satirist did, who wrote so bitterly against certaine painters that sold his picture vp and down in a mockery to be laughed at (because he was hardfavoured,) that many of them for grieve hanged themselves. I had purposed to haue annexed hereunto a discours of Armory: the manner of painting with virgin wax, and with feathers, not altogether impertinent to our purpose; but I haue reserued it (being a while imploied in som important businesse) till some other time, entreating thee in the meane while, to take vwhat I haue begun as affectionately as I offer it.

The most assured friend to all
that loue or learne this art of
drawing or painting.

H. Pecham.

Ad Zoilum Authoris Epigramma.

*Zoile viciatim dum Criticus omnia lustras,
blattaque liuenti dente aliena voras:
Usque licet nostrum ieiunus rode libellum
qui tibi (ni fallor) mille venena dabit.*

to the Reader.

I am not worthy to be called a painter, I can do no more
than to draw my picture in a word, and tell it. And perhaps I
could repeat them against as I speak the same words
and who would be sorry against certain painters
that told his picture up and down in a mockery to be
laughed at (because he was hard-hearted, that many
of them for good changed the subject. I had purpo-
sed to have annexed to it a list of names of Artists
the manner of painting with virgin wax, and with
leathers, not altogether inconsistent to our purpose;
but I have referred it to some other time, expecting
important business, till some other time, expecting
it in the mean while, to take what I have begun
as affectionately as I offer it.

The most affected friend to all

that love or desire the art of

drawing or painting.

A. P. B. 1687.

At College in London, the 10th of January.

John Smith, Esq. (to whom this is addressed)
I have the honor to acknowledge the receipt of your letter
of the 10th inst. and in answer to inform you that the
same has been forwarded to the proper authorities.



1. The excellency of painting.
2. The antiquitie.
3. Much esteemed in times past.
4. The manifold uses thereof.
5. Necessary to be taught.

CHAP. I.



PICTURA, or painting in generall, is an art which either by draughte of bare lines, liuely colours, cutting out or embossing, exprefeth any thing the like by the same: which we may find in the holy Scripture both allowed, and highly commended by the mouth of

God himfelfe; where he calleth *Bezaleel* and *Aholiab*, Men whom he hath filled with the spirit of God in wisdom and understanding, and in knowledge, and in all workmanship, to find out curious workes, to worke in gold, and in filuer, and in brasfe, also in the art to set stones, and to carue in timber, &c. There plainly shewing, as all other good arts, so caruing or drawing to be an especiall gift of Gods spi-

Exod. 31.

Be

rit,

Iob: 39:16

Polit. 8.

I Sem:
Exam: de in-
genios.

rit. In another place he goeth farther, and as it were challengeth to himselfe the Mastership of the company in that his Maiestique *Erotema* in Iob in these words: *Hast thou giuen the pleasant wings vnto the Peacock and wings and feathers vnto the Ostrich?* whereas disabling the wit of man by his owne excellency: he giueth vs to admire that admirable wisdom in disposing so many beautifull colours, from the wings of the proude Peacock and Ostrich vnto the poore Butterflie, that astonished I may say with *Aristotle*, euen in these little painted Creatures there is *τι θαυμαστον*, and in the very border of one of their wings, an euident tast of the diuine Omnipotency. But as Picture hath been allowed of God, so it hath aswell among Christians, as the Heathen bin honored from all antiquity, and always found fauour with the greatest wits and mightiest Monarchs of the world; insomuch as *Aristotle* in his Politiques accounteth it among those *liberalia Padeumata*, and counselleth it as an especiall thing to bee taught vnto children: and not long after by the authority and labour of *Eupompus* a learned Geometrician and painter, it was taught in all Grammar schools throughout Greece. But some will tell me; Mechanicall arts, and those wrought with the hand are for the most part base, and vnworthy the practice of Gentlemen and great personages. I confesse the Lord of Bartas hath said: *L'eur esprit se'n suit au bout des doigts*. But forasmuch as their ends are honest, & themselves but the exercises of prægnaunt, & the finest wits: I see no reason (as one saith) why nature should be so much wronged in her intetion, as not sotime to produce into action that wherto she is well inclined: And no more disgrace to a Lord to draw a fair picture, then to cut his

Hawks

(3)

Hawks meat, or play at footeball with his men. *Achilles* thought no scorn to be so cunning in cookery, that whē certain embassadors came vnto him, his own hāds dressed them a great & roial supper: & *Homer* to no smal cōmendation of his *Vlisses* (vnder whose person he shapeth an absolute wisemā) saith he could make his ships himself. *Quintus Fabius* (whose stock was one of the noblest in *Rome*, after called *Pictore*) with his own hāds painted the wals of the temple of *Salus*, & wrote his name vnderneath. *Pomponius Atticus* (a man of singular wisdom, & so loued of *Tully*) after he had composed a Poem of sundry deuises, beutified it with picturs of his own drawing. The Emperor *Constantin* gat his liuing a long time by painting. And in *Plinies* time certain festiuall days were yearly appointed at *Corinth* for exercise of picture for great prizes & wagers. Since painting then hath been so well esteemed, & of it own nature so linked with other arts, as many of them can hardly stand without it: I think, not for pleasure only, but of necessity most needful to be exercised, of all such that either study the Mathematicks, mean to follow the wars, or trauell into forreine countries: I haue heard many & excellēt men of these seuerall qualities lament so great a wāt in themselues, otherwise most absolute. My scholer then I would make choise of, I wold haue a yong Gentlemā, if it might be, who were inclined to drawing by nature, at the least a welwiller & louer of it; & as *Tully* would haue in his Orator, so I require in him *aliquid redundans & amputandū*, a prety fantastical head & somthing (as chips of the sound timber, which cōmonly the best wits are subiect vnto) to be pared of; with all daily & cōtinuall practise, were it but *Apelles* his *vna linea*, without which it is impossible for him

*Rutilius in
vita Q. Fabii
pictoris
Iuriscon.*

In vita Pom

*Sigebert in
Chron.*

de Oratore,

to attain to ready draught, & les to excellēcy in general

- { 1. The most excellent painters of old time.
 { 2. The great value and prizes of pictures.
 { 3. Of certaine women that haue excelled herein.
 { 4. Of Statuary or caruing.

CHAP. 2.

*Aelian de
 varia Hist.
 lib. 10:*



Painters at the first (saith *Aelian*) were such büglers and so rude, that they were fayn to write ouer a Cow or a Hog, what beast it was : otherwise the behoulder could not tell what to make of it; but in a short time they grew to that perfection, that they were honoured well nigh as Gods, as *Metrodorus* the Athenian: of whom, as of the rest that were famous in their times (as well for the dignity of this art as for the Readers recreation) I will make mention, as I find in *Plinie*, *Pausanias*, and others.

Apollodorus *Apollodorus* among the Athenians was the first that did expresse the life with colours, and that was famous for his pencill.

Euphranor. *Euphranor* a painter of Isthmos, was the first deuiser of Emblems, and heroicall Impresa's for shieldes, and the first that obserued *Symmetry*, or proportion, wherof he wrote many volumes.

Parrhasias. *Parrhasias* aboue all others excelled in black & white, and had the principall commendation for his Arte in casting and curling the hayre.

Pyreicus. *Pyreicus* (as *Volaterane* saith) was only famous for counterfeiting all base things, as earthen pitchers, Barbers shops, a scullery, Rogues together by the eares, swine

swine sleeping in the myre &c : Whereupon hee was surnamed *Rupographus*, that is, a painter of base things.

Aristides was the first that expressed sence and passion, as in that peece of his, where he painted a mother deadly wounded, with her child in her armes, striving for the Teat; she weeping in extreame passion, loath to deny it her brest, and loath to let it suck, for feare of killing it with her own blood, which in great abundance issued forth with her milke. This table *Alexander* carried with him to *Pella*. *Aristides.*

Nicophanes had attributed vnto him the statelines of Inuention. *Nicophanes.*

Protophenes was the first that could lay his colours so artificially, that one being worn off, another succeeded fresh, to the number of fower or fve: it is saide when he vndertooke any excellent peece, hee would obserue a strict diet; eating only pease, lupines and such like, to the intent his wit and inuention might become the more sharpe and fine: Amongst his other workes his *Lalysus* or *Bacchus* hath the principall praise, which table (when *Demetrius Poliorcetes* besieged the Rhodes) being in the Iland, he refused to enter where he hearde it was kept, least by the rudenes of his souldiers it might receiue harme: protesting as *Plutarch* saith, that he had rather burne all his fathers Images: which occasion at that time being overslipt, his enterprise came to no effect. *Protophenes.*

Aelian saith this table was seuen yeers in making. *in Demetr.*
Apelles who liued in the 1012 *Olympiade* excelled all the others, yet for action and disposition, he gaue place to *Amphion*: many times hee would sayle ouer to the Rhodes to see *Protophenes* and his worke: among his peeces the picture of *Alexander* at *Ephesus*, and his *Venus* which *Apelles.*

which he left at his death vnfinished in *Chios* were the most notable.

Galaton. *Galaton* surpassed all others of his time, for witty conceit & Inuention: amongst other his deuises, he drew *Homer* vomiting, and a number of pety Poets gathering it vp.

Claudius Pulcher painted Tiles so artificially, that *Ra-*
uens lighted vpon them.

C. Pulcher. I will passe ouer the artificiall peeces of *Zeuxis*, *L. Man-*
lius, *Pacuvius* a Tragedian Poet, *Metrodorus* a most cun-
de quo Ci- ning painter and a great Philosopher; who, when *L:*
cero. *Paulus* wrote vnto the vniuersity of Athens to prouide
de Oratore him a graue and learned Schoolemaster for his sonnes,
was chosen by generall consent, and sent to Rome, as
the fittest man both to teache his children, and to adorn
his triumphes.

Nor will I make mention of others of later times, as
Hercole di Ferrara, & his notable workmanship seen this
Ferrara. day in *Bononie*. *Bellino* the venetian, whose fame caused
Bellino. the Turk to send for him, frō whom he returned roially
rewarded. *Vnicio*, and his admirable peece of the twelve
Vnicio. Apostles in the church of our Lady of grace in Millan:

Pisanello that so beautified the Church of *Laterane* in
Pisanello. Rome, which the world may scarce match for rarenes &
tenuity of shadowing: *Petro de Burgo*, that so excelled in
perspectiue. *Zoto* the Florentine with many others. Nor
Petro de of those of neerer and our own times, as *Michael Angelo*
Burgo. & his brother, *Alberdure*, *Stradane*, *M. Hilliard* & *M. Isaac*
Zoto. our own countrimen; because their works are yet scarce
Adi. Angelo dry in the world. Now least you shold esteem but basely
Alberdure. of this art, & disdain your pictur because you may haue
Stradane. it for a trifle (which I acout a fault in many of our good
M. Hilliard workmen) I will tell you the prizes of some peeces of
M. Isaac.

note

(7)

note as well in ancient time, as of late days. *Cæsar* the dictator redeemed the tables of *Ajax* & *Medea* for 80. tal. which amounteth to 24000 french crowns, I speak with the least, because I take *minus talentum atticum* (for generally where you find *talentum* in any Latin author, as in *Tully pro C. Rabirio Posthumo* and in his *Epist. es ad Attic.* & in other places where you have it of most: you must understand the Athenian talent, except you have the addition of *Aeginum*, *Sirium*, *Babylonum*, &c) the greater was bigger (as *Budæus* saith) by a third part: *K. Alalus* paid for one of *Aristides* peeces an hundred talents. *Hortensius* the Orator gave for a table of the *Argonautæ* 144 talents. *Mnason* paid to *Asclepiadus* for the 12 Gods, after 300 pound sterling a peece. *Candaules K. of Lydia* gave to *Bularchus* for a peece of his the weight of the same in gold. Pope *Innocent* the 8 a worthy fauorer of all good artes, bestowed vpon *Andrea Mantega* his painter in the *Belvedere* in *Rome*, 2000 ducats for a months pains. The *Genoans* paid vnto two *Germane* painters for the battel of *Patras* fought between *don Iohn* of *Austria*, & *Hali Effa* 187 ducats. And what a round sum was once offered by strangers for *S. Magnus* altar cloth in *London*: many other examples might be alledged, but I haue said enough to shew that artes haue alwaies bin wel paid their hire, & the professors bin had in esteem with the worthiest men. Neither hath picture bin peculiar to men only, but also women haue bin excellent herin. *Timarete* the daughter of *Micon*, a famous paintres drew *Diana*, which at *Ephesus* was counted among the best and ancient pictures. *Olympias* taught *Antichulus* the art of shadowing, there wer other very famous herein, which for breuity I omit: as *Irene*, *Calipso*, *Lala*, *Aristagore*. But we end with those famous

The excee.
ding value
of pictures.
de quibus
Cic. Act. 6.
in Verrem.

B. in Affe.

famous Artists leauing them to their graues, and their works to the admiration of all posterity, and speake of Statuary or Caruing, which thus farre differeth from painting; this doth expresse hir image in the plaine or smooth Superficies imaginarily; the other in the hollow and vneuen Superficies, really. It hath been I confesse in as great account as painting; yet it deserueth not altogether so well, because it is more rude and rough in exercise, and worketh not with so fine a iudgement: for painting is tied to counterfeite all shadowes, expresse the life, sence and passion, whereas in caruing they fall in with the chissell, and nothing els required but an euen proportion.

*A painter not priuiledged to draw what he list.
2 Great abuses may arise of Painting or drawing.
3 How and when to vse it.*

CHAP. 3.



AS I woulde haue my scholler take his pleasure, so would I not haue him buy it at too deer a rate, either with losse of ouermuch time in neglecting the maine profession, or of his eares for a libeller, defaming honest men by illfa- uoured pictures: as drawing them with Asses ears, huge noses, hornes or such like, neither to thinke with *Horace* that he may *quidlibet audere*: for there be some things that ought to be free from the pencill, as the picture of God the father: or (as I haue seene) the whole Trinitie painted in a glasse window; which hee cannot do with-

out artificiall blasphemy, and reuiuing from hell the old heresie of the Anthropomorphites who supposed God to be in the shape of an old man, sitting vpon his throne in a white Robe, with a triple crowne on his head. I know what diuers haue in this behalfe al-
 ledged, one speciall place they haue in *Ezechiel* in the vision of the throne, but howsoeuer, it is misliked by many good Catholiques, and none of the worst deuines in their owne Catechismes and confessions, though especially and in plainest termes by *Lorchius Catholic. In-*
in these words. Est prater ea abusus imaginum quod san-
Etam Trinitatem prae sumptimus exprimere, quod haeresis est praecept. 1.
pestilentissima, quid enim magis S: Trinitati aduersum, at-
que Patrem effingere senis silicernij effigie, filium iuuenis
formam habentem, spiritum sanctum alitis speciem volitan-
tis referentem: Quid Idiota ex tali libro didicisse poterint?
 errorem sane & haeresim. Secondly he must abstaine with Christian modesty from drawing arts of filthines, & laying open those parts which Nature would haue kept secret: what hurt hath that abominable **Aretine** done by his booke and bawdy pictures? and what lewd art is ordinarily shoven in the naked pictures of wax fould vp and downe as *libidinis fomenta*? Surely I must commend art in them, though detest their wicked makers and abominable ends. For the time of drawing, I woulde haue my Scholler take it when he is wearied at his book, forced to keep home by reason of foule weather, or sollicitated by idlenesse to some wors businesse: hauing chosen such a conuenient time, let him make or buy him a fayre paper book for the nonce, to begin to practile in, and keep very carefully that he hath done, by which he shall

see how hee profiteth daily, auoyd scribbling in loose papers and (keeping his hand from walls or wain-
scot) to deale plainly the bable: For *Il muro bianco car-
ta di matto* passeth currant through Italy.

Instruments necessary for drawing.

CHAP. 4.



Am not ignorant of sundry waies that haue beene deuised to teach draught, as namely by crossing the pattern, then your owne paper with equall spaces, filling the same as you finde in your example; also drawing vpon a lanterne horne, with a paper blackt with a torch, and such, like: neither do I mislike any such conuenient help to a yong learners furtherance; but if you wil learn to the purpose, and grow cunning in short time, you shoulde rather fall to it onely by your owne conceipt and Iudgement, and let thole toyes goe, you must first get you black lead sharp-
ned finelie: and put fast into quills, for your rude and first draught, some ten or twelue.

*Black lead
in quills.*

*Sallow
coales.*

Moreouer you must not be without as many Sallow coales, sharpned at the ends, you shall chuse them thus, they are more blew and finer grained then the other coales, smooth (being broken) like fatten: you shall sharpen them vpon one of your fingers, as also your black lead; otherwise they will quickly breake and point sharp.

*Rule and
compasse.*

Get you also a small paire of brazen compas-
ses and Brasil rule, for taking the distance, if you
follow

followe a printe; and bee not without the crums *Manchet or*
 of fine manchet or whitebreade, to rubbe out *finewhite*
 your lead or coal, when you haue done amisse, or fini- *bread.*
 shed your worke.

Scriueners & Schoolemasters in the Country
 that teach to write haue diuers small pensills of
 broome, with which they shadowe greate letters in *Broome pen-*
 cobby bookes very pretily: they are made in this *cils.*
 manner, take a broome stalk about the bignes of
 a spoone handle, and cut it even at the end, when
 when you haue done, chewe it betweene your teeth
 till it be fine and grow heary at the end like a pensill,
 but I care not how little you vse them, because your
 pen shall doe better & shew more art.

For your drawing pennes, neuer be without twen-
 ty or thirty at a time, made of Rauens and goose
 quills, your Rauens quills are the best of all other,
 to write faire, or shadow fine, your goose quills serue
 for the bigger or ruder lines.

The first practise.

CHAP. 5.



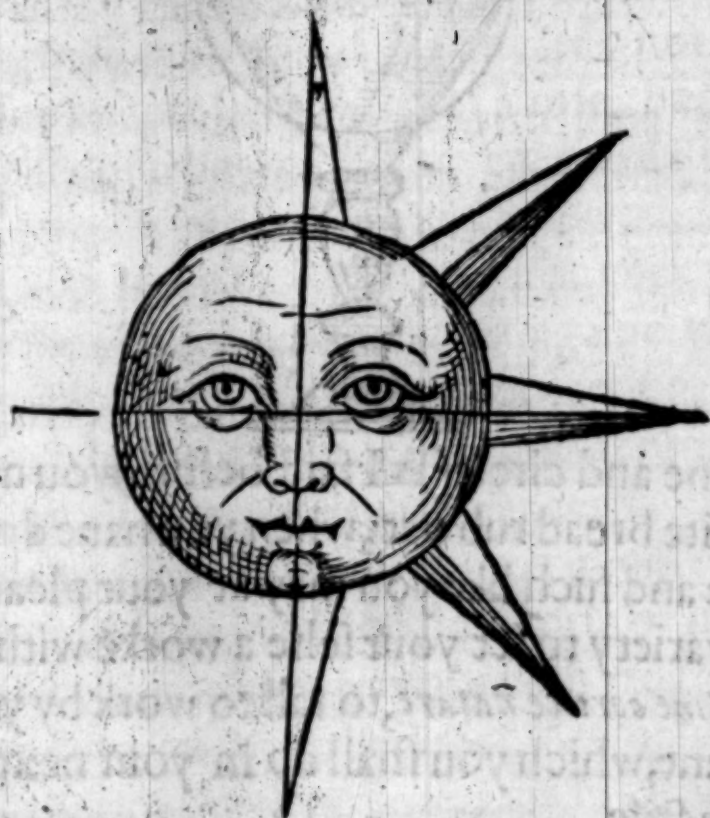
Having these in a readines, you shall prac-
 tise for the space of a week or there abouts,
 to draw Circles, Squares of all sorts, a Cy-
 linder, the ouall forme, with other such like
 solid and plaine Geometricall figures, till you can
 doe them indifferet well, vsing the helpe of your

rule and Compasse: the reason of exercising you first in these is, when as Symmetry or proportion is the very soule of picture, it is impossible that you should be ready in the bodies, before you can draw their abstract and generall formes, and haue woonted and made your hand ready, in proportions of all sortes, which are compounded of the same, as for example, your Circle will teache you, to draw euen & truly all Sphæricall bodies which are, *ὁμομετρῆ καὶ ὁμοιοσχημέα*, of like parts and formes, as the Sun, Moone, Stars, &c. The most flowers as the Rose, Marigold, Heliotropium, Daisie, &c: the most vessells as cups, Basons, Bowles, Bottles, &c. The squate will make you ready for all manner of compartments, bases, perystiles, plots, buildings, &c: your Cylinder for vaulted turrets and round buildings; your Orthogonium and Pyramis, for sharp steeples, turrets and all things, *in micronem fastigiata*, your Ouall forme will help you in drawing the face, a shield, or such like: so that you may reduce many thousand bodies to these few generall figures, as vnto their principall heads and fountaines.

After you are cunning in these figures (beginning with the Circle and) imitate some thing of Circular forme, what you shall think good, in which as in all the other aforenamed proportions you shall worke and help your selfe by the Diameter (which is a strait line, drawn long waies iust in the midst of your circle or square) and which will guide you marueilously in your work: for example if I would draw the Sun, so soone as I haue made a fayr Circle I draw (with co'e or lead that I may rub it out againe) my Diameter, or line down the midst, ouer which if you will againe, you

(13)

you may draw a crosse line, both which deuide your Circle equally into 4 parts as you see,



Which Diameter with the crosse line, are not onely your directors for the equall placing of the greater & leffer beames, on the side as you may perceiue: but also for the drawing of the nose, mouth and eyes euen, in the midst of the face.

I will giue you another example of a goblet, first I make a halfe or semicircle for the bowle, downe the midst of which (as low as I would haue the foote to come) I draw my Diameter or straight line, which being done, the worst is past: you must now marke, I am not tied to make my bowle as round as the circle, but long or what fashion I list, no other vse hath the Circle there then to guide me euen on either side, whether I make it broad or narrow, long or short, embosse it or howsoeuer, the other part of the line causeth

causeth me to make the foot euen as you see.



which line and circle(as I said before)you may with your white bread rub out, when you haue done.

In these and such like you may at your pleasure find infinite variety to set your selfe a worke with, till you are able, *Sine cortice nature*, to fall to work by your own iudgement; which you shall do in your next and second practise.

The second practise.

CHAP. 6.



You shall, next after your hand is grown ready in the aforesaid proportions, practise to draw smal and easie things, comming as neer your former examples as may be, by your conceipt only: as a cherry with the leafe, the shaft of a steeple, a single or canker Rose, &c. wherein you shall begin to take some delight, and find no great difficulty.

But in drawing these and whatsoever els, I must not forget to tell you; that you must be perfect and quick in the generall or outward lines, and giue them a reasonable

sonable good proportion, ere you fall to shadowing
 or tricking your work within: wherefore I would haue
 you make an essay 6 or 7 times at the least for the ge-
 nerall proportion only: if at the first it be not to your
 mind, as for exāple in drawing of a rose, be sure that
 the compasse of it be not faulty, ere you cast out the
 leaues by 5 equal lines, or in making a womans ruffe,
 that you skore it out first narrow in the neck, then wi-
 der from the cheekes, and narrow againe vnder the
 chin very truly, ere you add the lace or seting, al which
 is don with 1 line which I cal the general or extreame.
 For those forms that are mixed & vncertain, & where
 your circle and square cā do you no good (being left
 only to your Idea) as in a Lion, a Horse or such like:
 you must work altogether by your own iudgement, &
 win the proportion by dailie practise, which wil seem
 very harsh & strange vnto you at the first, but to help
 your self herein you shall do thus: hauing the generall
 notion or shape of the thing in your mind you mean
 to draw (which I doubt not but you may conceiue
 and remember as wel as the best painter in the world
 though not expresse according to the rules of art)
 draw it with your lead or coale after your own fashiō
 though neuer so badly, & laie it from you for a day: *How to helpe*
 the next daie peruse it well, bethinke your selfe *you in your*
 where you haue erred, and mend it according to that *Idea.*
 Idea you carrie in your mind, in the generall propor-
 tion: when you haue thus done, laie it by again til the
 next daie, & so cōtinue for 5 or 6 daies together, cor-
 recting by degrees the other parts euen to smal vains
 as your discretiō wil serue you, this may you do with
 40 papers at once, of severall things, hauing done
 what

what you can (though not to your liking) confer it by the like, some excellent print or patterne of the same, vsing no rule or compasse at all but your own iudgement in mending euery fault lightly, and with a quick hand, giuing euery place his due; whereby you shall of all sides meet with your errors and find an incredible furtherance to your practise: though hereunto is required I must confesse, a strong imagination and a good memory, which are the midwiues to this arte and practise as in all things els the nurse that brings it to the full growth and perfection.

*Of drawing the face or countenance
of a man.*

CHAP. 7.



Ince man is the worthiest of al creatures, and such pleasing variety in countenances so disposed of by the diuine prouidence, that among ten thousand you shall not see one like another (as well for breeding delight, as for obseruing a methode after you haue practised according to your former directions in other things) you shall begin to draw a mans face, in which as in al other creatures you must take your beginning at the forehead, and so draw downward till you haue finished.

The full face.

The visage or countenance is (for the most part) drawn but three manner of waies, the first is full faced, as commonly we see King Henry the 8 drawne: the

(17)

The second is 3 quarter faced, as our Flanders and
ordinarie pictures are, that is when one part of the
face is hid by a quarter as thus :

*The 3 quar-
ter face.*



The third is onlie halfe faced, as you see the pictures
of *Philip* and *Mary* vpon a twelue pence.

Halfe face.

For draught of a full face you must beare in memory
and narrowlie obserue the breadth of the fore head,
and the compasse of both the cheekes, all which are
composed of two lines as thus :



And be carefull to giue as precise an euenesse to one
side as to the other; causing both your lines to meete
at the tip of the chin: your diameter guideth you for

D I

the

the euē placing (as I said) of nose & mouth, your other line for the iust oppositiō of the eies between which in distāce for the nose, always leaue the space of an ey

*The space of
another eie
to be left be-
twene the
eies.*

The end of the nose in ordinary proportion must be brought no lower then the middle of the cheek, from whence to the chin is for the most part as far, as from thence vpwārd to the eie browes.

The nose of a ful face must not be expressed with apparant lines, but with a very fine shadow on each side as you see.

An eie is commonly drawn in this manner.



To make an angry or sterne countenance let your brow bend so, that it may almost seeme to touch the ball of the eie; at what time you must also giue the forehead a fine wrinkle or two, and withall the vpper part of the nose betweene the eies.

*great diffi-
culty in the
eie.*

A great conceipt is required in making the eie which either by the dulnes or lively quicknes thereof giueth a great taste of the spirit & disposition of the mind, (which manie times I will not denie may be aswell perceiued by the mouth, & motion of the body,) as in drawing a foole or ideot, by making his eies narrow, and his tēples wrinkled with laughter, wide mouthd, or shewing his teeth &c. A graue or reuerend father by giuing him a demisse and lowly countenance, his eie beholding you with a sober cast which is caused by the vpper eyelid, couering a great part of the ball, and is an especial marke of a sober &

Nicephor. lib staied braine within. *Nazianzen* when hee beheld
10 cap. 3 7. Iulian (long time before hee was Emperour of *A-*
thens,

then, at the verie first sight of his countenance, (Præ-
 faging his future disposition) burst forth into these
 words; *Deus bone, quantum malum fouet romanum im-* *Nazianz.*
perium: for (as he witnesseth himselfe) there was not *in 2. inuict.*
 any signe of goodnes or towardnesse in him, his eies *contra Iuli-*
 rowled in his head, wandring and turning fearefully *anum.*
 now this, now that waie; sparkling with furie & an-
 ger, his nose was grown wrinckled with scoffing and
 deriding the rest of his countenance tending to
 mockery, his laughter so immoderate that his whole
 body would shake therewith, his shoulders shrinking
 to and fro, to his neck: his legges and feete seldome
 standing stil; his questions and answeares suspitious,
 rash, and often interrupted by short fetching his
 breath: by which signes the good man foresawe his
 inbred tyranny and vile disposition, which after
 burst forth into an horrible persecution and open
 rebellion against God and his church. A Græcian
 Captaine in like manner noting very often the cast *Brussonius*
 of the eie & countenance of *Scylla*, together with *lib; 7. cap. 20*
 his gesture and motion of bodie, vsed these words: it
 is impossible but this gentleman one day shoulde
 prooue a great commaunder, and I meruaile that he
 is not aduanced all this while: by which examples
 and the like, I prooue that there is a certaine iudici-
 um, or notice of the mindes disposition inly im-
 printed by nature euen in the countenaunce, and
 many times in the eie or mouth, which (as I
 haue said) you must be carefull, as you shall haue oc-
 casion, warily to obserue.

Now for the mouth (though least of all other a- *The mouth,*
 ny generall rule may bee giuen for it,) it consisteth

principally of two lines whereof one expresseth the mouth it selfe, the other the neather lippe: the ouerlipp is best shoven by a shadow cast ouer the crosse line as you see: which shadowe and crosse line if you drawe by the life muste bee hit at an heyres breadth, and if your picture bee little, you cannot thinke so small a thing as giueth or quite taketh awaie the tutch and resemblance of the mouth: and to saie truly it will bee the hardest peece of cunning that euer you shall meet withall: therefore you had need cause the party whome you will drawe to fit as we saie, *Vultu composito*, without stirring or altering the mouth were it neuer so little: wherefore you shall I beleeeue find (a mās face) aboue all other creaturs the most troublesōe vnto you: for either they will smile, be oerlooking your hand, or setting their countenances to seeme gracious and comely, giue you choyse of twentie seuerall faces.

*The proper and ordinary shadowes
of the full face.*

IT is true that some do affirme, there can be no generall rule giuen for shadowing the face; the reason is, euery seuerall countenance hath his proper shadowe as it falleth, fat, lean, swoln, wrinckled with age, or deformed by some other accident: but their argument is much at one with that I remember a Welshman vrged in good sadnes in the schooles when I was Sophister in Cambridge: Wales was full of hills & dales, *Ergo* the world was not round: but to our purpose, The shadowes that fall naturally in this
face

face are these, first a single shadowe in the temples, then a double shadow in the corner of the eies, a circular shadow down the cheek, vnder the neather lip, a little vnder the nosethril, frō the side of the nose to the corner of the mouth, what these seuerall shadows and there vses are, you shall know anon.

Of the three quarter face.

The three quarter face, as I haue said, is diminished by a fourth part, where some part of the eie & cheek are taken away by the nose and made lesse: so that the cheek in full light must not onely haue his due proportion allowed him, but as much of the head & neck as was taken away from the other side.

In this face both the eies ought not to be made of equall bignes, because the eie is lessened with the cheek, as likewise a corner of the mouth; the shadows in a manner are all one with the full face, saue in this the neck & cheek are commonly deeply shadowed.

Of the halfe face.

The halfe face of all other is most easie, insomuch that if you will, you may draw it onely with one line neuer remoouing your hand; in this you are to shew but half an eie, and the eare at full, as you see.



In making a true eare there is some difficulty, wherefore I haue giuen an example by it selfe.

Of the whole bodie.

CHAP. 8.



Making the head too big, a common fault.

The neck.

When you are grown something perfect in the face, and can draw the head indifferent well, you must be careful to proportion the body thereafter, then the error of which, no one fault is more common with most painters: for you shall scarce see one among twenty but will draw the head too big, which if you obserue, you shall find in most pictures: help your selfe herein by setting a boie before you, causing him to stand which waie you list, and so to wont your iudgment to the proportion by little and little: hauing finished the head, draw the neck, beginning it with one line from about the tip of the eare; then draw the other downe from the ball of the cheeke (which is lessened on the other side) as far as you think good to the shoulder, where staie, till you haue shadowed it: the shadowes of the neck in a child or yong woman are verie fine, rare and scarcely seen, but in a man the sinews must be expressed, with the vaines, by shadowing the rest of the neck, & leauing them white. For the proportion of the other parts (because Master *Haddocke* hath preuented mee, whose booke in anie case I would haue you to buie, after you are well entred) I will omit and shew you onlie such eminences which by shadow must be necessary.

cessarilie expressed: after you haue don the neck, you
 are to expres the wing or vpper part of the shoulder *The sholder.*
 by shadowing it vnderneath, the brawne of the arme *The arme.*
 must appeare full, shadowed on one side, then show *The wrist.*
 the wrist bone thereof and the meeting of the vaines
 in that place, the vaines of the back of the hand, and
 the knuckles, are made with 2 or 3 heare stroaks with *The knuckles*
 a fine touch of your pen: the paps of a mā are shown *The paps.*
 by two or three fine stroakes giuen vnderneath, in a *The Ribs.*
 woman, with a circular shadowe well deepened, the
 ribs are so to be shadowd, as you doubt whether they
 appeare or no; except your man were starued, or you
 should draw death himself: the bellie shall be eminēt
 by shadowing the flanke, and vnder the breast bone: *The belly.*
 the brawn of the thigh shall appear, by drawing smal
 heare strokes from the hip to the knee, shadowed a- *The thigh.*
 gain ouerthwartlie: the knee pan must be shown with
 the knitting thereof by a fine shadow vnderneath the
 ioynt; the sh n bone from the knee to the insteppe, is *The knee.*
 made by shadowing one halfe of the leg with a single
 shadow, the ankle bone will shew it selfe by a shadow *The legge.*
 giuen vnderneath, as the knee; the sinews must seem
 to take their beginning from the midst of the foot. &
 to grow bigger the neerer they are to the toes.

There is a great art in making the foote wherein
 your shadowes must take place as occasion serueth,
 and to saie the trueth, so they must in the other parts, *The foote.*
 but naturallie they fall as I haue saide; for teaching
 you the true shadowing of a naked bodie; *Goltzius* is
 one of the best whom aboue any other I wish you to
 imitate.

Of Shadowing.

That you might better vnderstand what I meane in this last chapter by so manie kinds of shadowes, I will ere I go farther shew you what they be, with their seuerall vses.

The first is a single shadow, and the least of all other, and is proper to the plaine Superficies where it is not wholelie possessed of the light; as for example: I draw a fowr square shaddowe, because low, but all plain (as cipatinge with the naturall and agreea-

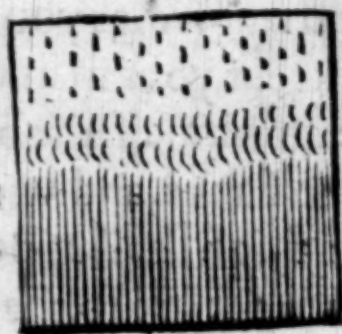
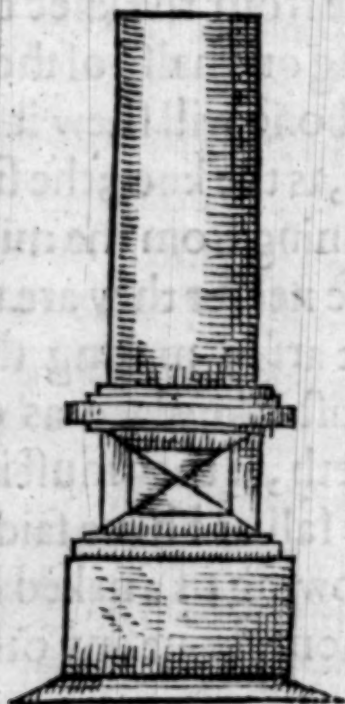


plate thus, that there is no hol-
neerest parti-
light) is most
ble to that bo-

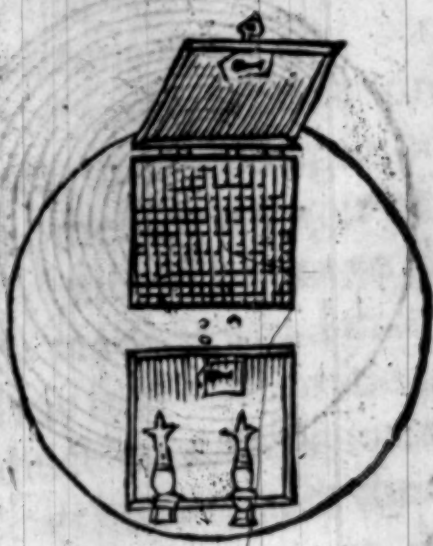
*The double
shadow.*

The second is the double shadow, and it is vfed when the Superficies forsake your eies ceine best in a where it beeing it presenteth to were) the back-vnshaddowed to treble shaddowe sing ouer your againe, which third part in this



begins once to as you may per-column as thus: darkned double, your eie (as it side, leauing that the light. Your is made by cros-double shadowe darkeneth by a manner, as fol- loweth.

It is vsed for shadow and the light, as chinks of the caues within whē you ima- in at a doore, vnder the bel- of beastes to nes or darknes ty wood, that



the inmoste farthest from in gulfes, earth, wells, houses (as gine to look or window) lies & flanks shew the thik of a mygh- it may seem

nulli penetrabilis astro: consequently in al places where the light is beaten foorth, as your reason will teache you.

Generall rules for shadowing.

You must alwaies cast you shadow one way, that is, on which side of the body you begin your shadow, you must continue it till your worke be done: as if I would draw a man, I begin to shadow his left checke, the left part of his neck, the left side of the left arme, the left side of the left thigh, &c: leauing the other to the light, except the light side be darkned by the op- position of an other body, as if three bowles should stand together, that in the midst must receiue a sha- dow on both sides.

2. All circular and round bodies that receiue a concentration of the light, as the light of a burning glasse, when it dooth gather it selfe into a small center, must bee shadowed in circular manner as

E I

thus:

3. thus: All per-
do receiue no
therefore hee
that in the trās
our Sauour in
not gaue his
deep shadow,
king to shewe
hee gaue the
lighte it selfe a



fecte lightes
shadow at all,
did absurdly,
figuration of
the mounte
garmentes a
but also thin-
greate Art,
beams of the
deeper, both

4. which ought to haue beene most glorious, and all
means vsed for their lustre and brightnes, which hath
been excellently well obserued of *Stradane*, and *Golt-
zius*. Where contrary shadowes concur and strinue (as
those crosse winds about *Aeneas* his ship) for superio-
rity, let the nearest and most solide body bee first ser-
ued. In the double and treble shadows, let your first
strokes be very dry for fear of blotting, ere you crosse
them.

5. It will seeme a hard matter to shadowe a gemme
or well pointed Diamond, that hath many side
and squares, and to giue the lustre, where it ought
but if you remember and obserue the right vse of
your shadowes giuing the light to the lightwarde
which I haue taught you, you shall easily do it of you
selfe.

A merry iest of two Painters.

VWhilest I lay in Huntingdon, there grew a qua-
rel between two painters, the one a stra-
ger and a Sojourner, the other dwelling in the
town

towne, the ground of which quarrell was a secret æmulation betweene them (as commonly falleth out among tradesmen of one profession) which burst out so farre, that at length one challenged to paint with the other for a wager of 20 nobles; the picture which should be drawn (because the stranger had already made and sold many) was the picture of Christ, and my selfe chosen iudge of the workmanship: great aduice and deliberation was taken on both sides (Now the painter of the town to shew (as he thought) extraordinary art in shadowing, had laid with charcoale in a deepe blew the cheeks and eies of his picture) at the last, the worke beeing finished, and both ready to heare my verdict; Newman the stranger who was the better workman so soon as he saw his aduersaries worke, God forgiue me (quoth hee) heere a picture with a witnes, it looks as if it had been beaten black and blew: and I pray you (quoth the other) was not Christ buffeted, whereat certain gentlemen present, and my selfe took so good an occasion of laughter (hee speaking it in an honest simplicity to saue himselfe) that wee could do no lesse then make them both frinds giuing them their mony again; & thus much of shadowing.

Offore=shortning.

CHAP. 9

FOreshortning is when by art the whole is concluded into one part, which onely appeareth to the sight: as if I should paint a ship vpon the sea, yet there

should appeare vnto you but her fore part, the reste imagined hid, or likewise an horse with his brest and head looking full in my face, I must of necessity foreshorten him behinde because his sides and flanks appeare not vnto me: this kind of draught is willingly ouerslipt by ordinary painters for want of cunning and skill to performe it; and you shall see not one thing among an hundred among them drawn in this manner, but after the ordinary fashion side waies, & that but lamely neither: I neuer beheld more absolute skil in his kind then in some of the Pageantes at the coronation of his Maiesty; but I would not haue you meddle with it till you were growen very cunning in pour plaine Draught.

The vse of foreshorning.

THe vse of foreshorning is to expresse all manner of action in man or beast, to represent many things in a little room, to giue or shew sundry sides of Citties, castles, forts, &c, at one time.

Of Landskip.

CHAP. 10.



Landskip is a Dutch word, & it is as much as wee shoulde say in English landship, or expressing of the land by hills, woodes, Castles, seas, valleys, ruines, hanging rocks, Citties, Townes, &c. as farre as may bee shewed within our Horizon. Seldome it is drawne by it selfe, but in respect & for the sake of some thing els: wherfore it falleth out among those thing which we call *Parer-*

ga, which are additions or adiuncts rather of ornament, the otherwise necessary: as for exāple I should Draw the citty of *London*, I would beside the citty it selfe, shew in vacant places (as far as my table or Horizon would giue me leaue) the Country round about, as Shooters hill, and the high way winding vp there between the woods, the Thames to grow lesse and lesse, & appearing as it were a dozen mile of, heer and there scattered with shippes and boats: Greenwich with the tower there and such like, all which are beside my purpose, because I was tied to nothing but the citty it selfe: this kind of all other is most pleasing, because it feedeth the eie with varietie. Before you make your Landskip, you must haue perfected all your other work, & let that be the last: you may draw it at your discretion (except you be tied to the contrary, & make it either plaine, hilly, all sea, &c: as for your superficies I meane of rising or declining of the ground with hilles or Dales, let it fall out how it will, because you cannot drawe it so rough with hills, or with so euen a plainnes but the earth hath the like in on place or other.

Generall rules for Landskip.

YOU shall alwaies in your Landtskip shewe a fair Horizon, and expresse the heauen more or lesse either ouercast by clouds, or with a cleare sky, shewing the sunne rising or setting ouer some hill or other: you shall seldome, except vpon necessity, shew the moone or stars, because we imaginall things to be seene by day.

If

Poster, 1.

2. Yf you shew the Sunne, let all the light of your trees, hils, Rocks, building &c be giuen thitherward: shadow also your clouds from the sunne: and you must be very dainty in lessening your bodies by their distance & haue a regard, the farther your Landskip goeth to those *vniversalia* which as *Aristotle* saith (in respect of theyre particulars concealed from our senses) are *notiora* : as in discerning a building 10 or 12 miles off, I cannot tell whether it bee Church, Castle, gentlemans house, or the like: So that in drawing of it I must expresse no particular signe as bell, portculleis &c, but shew it as weakly and as faintly as mine eie iudgeth of it,, because all those particulars are taken away by the greatnes of the distance. I haue seen a man painted comming downe a hill some mile and a halfe from mee, as I iudged by the Landskip, yet might you haue told all the buttons of his dublet: whether the painter had a futtle inuention, or the fellows buttons were as big as those in fashion whē *Monsieur* came into England, I wil leaue it (friendly reader) to thy iudgement.

If you laie your Landskip in coloures, the farther you goe, the more you must lighten it with a thinne and aiery blew, to make it seeme farre off, beginning it first with a darke greene, so driuing it by degrees into a blew, which the densitie of the air betweene our sighte and that place doth (onely imaginarily) effect: your eie may easily bee deceiued in remote thinges, that is when the bodies appeare to your sighte farre bigger then indeede they are, by the corruption (as wee saie) of the Medium: as
for

for example, the Sunne and Moone at their rising or Setting, you see, seeme farre bigger then when they are mounted ouer our heades in the *Zenith*: the reason is the thicknesse or corruption, as I sayd, of the ayre or Medium; which (beeing morning and Euening subiect to vapours) dooth participate and multiply the quality of the obiect: the same reason is giuen of a Seamew or stake that (beeing fowre or fiue miles from you, nere the Sea) will seeme as big as a Swanne, or greate Snowball: or of a twelue-pence, or apple cast into a cleare riuer: to take thereof iust and true Landtskip, neuer go foorth in a morning or euening, (but in the middest of the day:) for doubtlesse you will bee deceiued. An honest yeoman and a friend of myne was in this manner notably coesoned in buiying a bargain of Timber by the greate in a mystie or rimie morning, (the trees seeming bigger then they were) in a manner to his vndooing: but I feare mee, within these few yeares the mistes will bee so thicke, wee shall see no wood at all.

Of Draperie.

CHAP. II.



DRapery (so called of the French word *Drap*, which is cloth) principally consisteth in the true making and folding your garment, giuing to euery folde his proper naturall doubling and shadow; which is a great skil & scarce attained vnto by any of our country and ordinary painters: insomuch that if I would make triall of a good workman; I would finde him quickly by the folding of a garment, or the shadowing of a gowne, sheet, or such like: but to auoide folding, you shall see our common painters set forth their men & women, with lace, fringe, pinckings, &c. which makes as fayre a shew as the best. The Method now to bee obserued in Draperie, is to drawe first the outmost or extreame lines of your garment, as you will, full or narrow, and leaue wide and spare places, where you thinke you shall haue need of folds; drawe your greater foldes alwaies first, not letting any line touch, or directly crosse another, for then shall you bring an irrecoverable confusiō into your work: whē you haue so done, break your greater folds vnto lesse, which shall be conteined within them: I would giue you an example, but euery print will shew you the like; all your folds consist of two lines and no more, which you may turne with the garment at your pleasure: beginne your maine and greatest folds, from the
skirt

skirt vpward, and the closer the garments sitte, the narrower you must make them: for the shadowing of euery seuerall folde, obserue the first rule I gaue you in the Chapter of shadowing, and spare not to shaddowe your foldes, (bee they neuer so curiously contriued) if they fall inwarde from the light, with the double or treble shadow; as you shall see occasion: for the shadow take his place in one and the same manner aswell in folding as without: some haue vsed to drawe the body naked first, and after to haue put on the apparrell, but I holde it as an idle conceipte, and to small purpose.

*Generall obseruations and rules
for Draperie.*

Your greater folds must be continued thoroughout the whole garment, the lesser you may break and shorten at your pleasure.

The shadowes of all manner of silkes, and fine linnen are very thick, and fine, so that your foldes must not onely be little, but their shadow or deepning verie light, and rare, which commonly at the most is but a double shadow giuen with a new, and the finest penne.

You must not vse much folding where the garments ought to sit close or any eminency appeare, as commonly there doth in the brests of a woman, the armes, belly, thighes, legges, &c: but to shewe Arte,

you shall leaue the forme of the brest, leg, &c to appeare thorough, which you may doe by shadowing the brest or leg, (after you draw it) on one or either side, leauing it white.

As I tolde before of the light, so must you in your draperie haue a care of the winde and motion of the ayre, for driuing your loole apparell all one waie, which I haue seene well obserued in many excellent peeces.

Of Diapering.

CHAP. 12.



Diapering is deriued (as I take it of the Greeke verbe *διαρπασω* which is, *traijcio* or *transeo*, in English to passe or cast ouer, & it is nothing els but a light tracing or running ouer with your pen (in Damaske brāches, and such like) your other worke when you haue quite done (I meane foldes, shadowing and all) it chiefly serueth to counterfeite cloth of gold, Siluer, Damaske brancht, veluet, chamlet, &c: with what branche and in what fashion you list.

If you diaper vpon folds, let your worke be broken, & taken as it were by the haife: for reason telleth you that your fold must couer somewhat vnscene, which being drawn forth at length and laid plaine sheweth all faire and perfect: as *Ouid* saith of Tapistry.

Sic vbi tolluntur festis aulae theatri,

Surgere

Surgere Signa Solent, primumque ostendere vultus:

Cetera paulatim placidoque educta tenore, *Metam. 3.*

Tota parent

You must moreouer in drapering, let your work fall out so, that there may be an affinity one part with the other, maintaining one branche or the same worke throughout, setting the fairest in the most eminent place, and causing it to runne vpward: otherwise one might imagine some foolish Tailor had cut out his Ladies gown the wrong way.

To make a chamlet you shall draw but fve lines waued ouerthwart, if your drapering consist of a double line; you may either shadow the ground, & leaue it white, or shadow your work and leaue the ground white: as you shall thinke good, in this kind your filling may be with smal pricks of your pens end, which will shew faire.

Of Antique.

CHAP. 13.



ANTIQUE so called *ab antiquitate*, because the inuention and vse thereof aboue all other kinds among the Græcians especially was most ancient and in greatest request, the Italian calleth it *L'antica*: it hath the principall vse in plate, clocks, armour, all manner of compartentes, curious Architecture, borders of maps, &c: Though you shall seldome haue any greate vse of it, yet I woulde haue you know what it is, and

what to obserue in it: The forme of it is a generall, and (as I maye say) an vnnaturall or vnorderly composition for delight sake, of mē, beasts, birds, fishes, flowers, &c without (as wee say) Rime or reason, for the greater variety you shew in your inuention, the more you please, but remembring to obserue a method or continuation of one and the same thing throughout your whole work without change or altering.

You may, if you list, draw naked boyes riding and playing with their paper-mills or bubble-shells vpon Goates, Eagles, Dolphins &c: the bones of a Rammes head hung with strings of beads and Ribands, Satyres, Tritons, apes, Cornu-copia's, Dogges yoackt &c drawing cowcumers, cherries & any kind of wild trail or vinet after your owne inuention, with a thousand more such idle toyes, so that heerein you cannot bee too fantastical. The late dutch peers in this kind excel all others, and certainly I know not by what destinie the Germanes haue wonne vnto them (aboue other nations) the glory of inuention, generally in picture: for except it bee a dutch peece, you shall haue it either lame, ill cut, false shadowed or subiect to some such grosse error. Wherefore, not without reason, Bodine calleth The country *officina hominum* a shoppe of men, as from whence a man might bee hadde for all turnes, either Deuine, Phisitian, Souldier painter, &c. Though much I confesse may be imputed to the industrie of that Nation (for none in the worlde are more painefull then they) yet without question the people of themselves, as they ar ingenious & capable of all

all other arts, so naturally they are inclined to this of Painting: Since the greatest persons among them as Dukes, Earles, and in a manner all the Gentlemen doe beare an inbred loue to drawing, and of themselves by theyre owne practise growe manie times wonderfull expert heerein: yet none at this daie who fauoureth a good picture, or any excellency in that kind, more then *Rodulph* the Emperour now liuing.



Of Drawing beasts, birds, flowers, &c,

CHAP. 14.



YOU shall finde amonge beastes some more harder to bee drawne then others for two respectes, one is for a clean making and shape, together with a finenes of the cote or skin: the other for theyr nimblenes and much action, both which you may for exāple see to fal out in a horse, whose lineamentes are both passing curious, and coate so fine, that many sinews yea and the smallest vaines muste be shoven in him, besides whose action is so diuers, that for hardnesse of draughte, I know not anie one beast maye bee compared to the horse; for sometime you muste drawe him in his career with
his

his manage, & turne, doing the Coruetto, leaping, &c. which you shall not find in the Elephant, Cowe, Beare, or hogg as beeing beasts heavy and sloathfull by nature: moreouer wanting that finenes of coat or hide, so that you shall escape a greate trouble in shewing vains, knitting of Ioints, with the eminency almost of euery bone in them, which you haue in a horse and greyhound. Now for the manner of drawing these or any other beast whatsoeuer: begin with your lead or coale (as before I told you and gaue you a generall rule) at the forehead, drawing downward the nose, mouth, vpper and nether chap, ending your line at the throat, then searhing it again where you began, from the forehead ouer the head, eares, and neck: continuing it till you haue giuen the full compassse of the buttock, but I will giue you an example.



Begin in this Lion my firste stroke at A, bringing it down to B, making the nose, mouth, and nether chap with one line, as you se, there I rest: then fetch I that line forward behind by S: making the compass
of

of his mane by pricks with my penne (because if I shoulde make a line, I could not make it iagged) then bring I the back down to the taile or D, leauing a little space for it, I continue my line from thence to E, or the heele, where I rest: then begin I again at B, and making the breast with the eminency thereof I stay at F, bringing out his neere fore foote, which I finish: then begin I at G not stirring my hand till I come to the foot or paw at H; wher I finish it quite at E, or the heele. I next draw from his bellie two strokes at I and K: I make the other legge behind, the right fore foot issuing from the breast: the I finish the tail, clawes, tounge, teeth, beard, and last of all the shadowing: which method you shall obserue in all beasts howsoeuer they stand.

Observations of the shadowing.



O V see him shadowed on the back side from C D, vnto E, the reason is the light beateth on his fore parte, wherefore of necessity the shadowe must be in euery parte behinde, eare mane, back, hinder legge, &c.

But you maie say, how happeneth it then, that his nether chap and some part of his throat & belly are shadowed being both with the light? I answere the light of it own nature cā neuer fall vnder, but take the place aboue or in the vpper part, which place is heer præpossessed by the vpper & nether chap, which as you see fall in between as likewise the forfoot to the belly, which cause a shadow in either of those places.

The treble shadow as it ought is giuen to the most inward places: If your beast bee not in charge, that

that is not in armes, and you are to shew the ground vnder his feete; you must make his farther feet on the other side somewhat shorter then those next you: the reason is, that distance of earth betweene them deceiueth the sight, causing the neerer to seem longest: as you may see by opening or stretching your fore and middle finger like a paire of compasses long waies from you, vpon a boord or table, drawing them with your pen as they stand, and obseruing the space betweenc.

Beasts more hard to
be drawn for their
shape and action.

Others more easie.

<i>Lion.</i>	<i>Elephant.</i>
<i>Horse.</i>	<i>Dromedary.</i>
<i>Rhinoceros.</i>	<i>Camel.</i>
<i>Vnicorne.</i>	<i>Beare.</i>
<i>Stagge.</i>	<i>Asse.</i>
<i>Lucerne.</i>	<i>Hogge.</i>
<i>Grey-hound.</i>	<i>Sheepe.</i>
<i>Hiena.</i>	<i>Badger.</i>
<i>Leopard.</i>	<i>The Pore-espine.</i>
<i>Ownc.</i>	<i>Wolfe.</i>
<i>Tiger.</i>	<i>Foxe.</i>
<i>Panther.</i>	<i>Cow.</i>
<i>Ape, &c.</i>	<i>Olter.</i>
	<i>Hare.</i>
	<i>Cony.</i>
	<i>All manner rough & shag hair dogs</i>

In drawing these and all other beasts, the better you obserue their shape and action, the better shall you please, and your iudgement be commended, wherefore

fore a painter had need to be well seene in Naturall Philosophie. The meaneft workeman can drawe the ordinary shape of a Lion, when scarce the best of them all know, that his hinder partes are so smal, that there is in a manner a disproportion betweene his forepart and them: so that if I should drawe him in this manner among our ordinarie painters, my work would be condemned as lame, when I deserued most commendation:

Moreover if you aske a Country painter whether he could draw a Crocodile or no, hee will make noe question of it, when as except he trauailed through AEgypt, or met with *Aristotle* in *English*, all the wit he had could not so much as set the chaps right, or giue the snout truely in the head to, shew the motion of his vpper-chap, which no creature in the world mooueth, saue onely he.

If you draw your beast in an Embleme or such like, you shall sometime shew a lant-skip (as it is ordinarily obserued by Iudicious workemen) of the country natural to that beast, as to the *Rhinoceros* an *East-indian* Lantkip, the Crocodile an *AEgyptian*, by laying the ground low without hills, many woods of palme-trees, heere and there the ruine of a Pyramis, and so forth of the rest.

*A lantkip
must be giue
to euery
beast accor-
ding to his
Country*

of birds.

There is les difficulty in drawing birds the beasts, & least of all in flowers, yet art and needful directions to be obserued in all of them: begin your draught in a bird, as I said, at the head, and beware of making it

too big: *Van Londersee's* peeces are much to blame for this fault, for in most of them the heads of all his birds are too great by a third part, neither is that fault proper to him alone, but to many good workmen els. You shall best remedy that by causing a bird to be held or tied in a clouen stick before you, where you shall take with your compasses a true proportion, which afterwards you may conclude into as small a forme as you list: there is not the same reason of proportion (it is true) in the heads and bodies of all birds alike, but hereby you shall euer after bee acquainted with a reasonable proportion, which though you hit not iustly, you shall come very neere: hauing drawne the head, bring from vnder the throat, the brest line, downe to the legs; there stay: and begin at the pincorn to make the wing, which being ioined with the back line is presently finished: the eie, legs, and traine must be the last, and (as I told you before in beasts) let the farther leg euer be shortest. the feathers as the hayre in beasts, must take their beginning at the head very small, and in fine rankes fall backward greater and greater, as this your example sheweth.



Of flowers, flies, &c.

For

For flowers, flies and such like, I wil leaue them (being things of smal moment) to your own discretion, counselling you at your leasure when you walke abroad into the fields, to gather and keep them in little boxes vntill you shall haue occasion to vse them. To draw a flower begin it *ab umbone*, or the bosse in the midst: as in a Rose, there is a yealowc rust, which being first made, draw your lines equally diuided, frō thence to the line of your compas, which you are first to giue, and then the worst is past.

You may shew your flower, either open and faire in the bud, laden with deawe and wette, wormeaten, the leaues dropt away with ouerripenes &c: and as your flower, so first draw rudely your leaues, making them plaine with your coale or lead, before you giue them their vaines or laggednesse.

For Butterflies, Brees, wasps, grashoppers, & such like, which wee call *Insecta*, most of them are easie to be drawne, and not hard to be laid in colours: because the colours of many of them are simple, and without composition, as perfect red, black, blew, yellow, &c: which euerye ordinary painter may laie, who if they should bee put (by mixture of many colours) to make that purple of a pigeons neck, or giue the perfect colour but of a Daw or Iay, you shold see them at their wits end.

In the moneths of Iune and Iuly, you may gather of all manner of flies, which you may preserue all the yeere, eyther in close boxes, or sticking them with a pinne seuerally vpon small papers: Butterflies are where store of Thistles and Lauender is, y our Brees by ponds and Riuers sides.

Notable absurdities to be avoided

in draughte.

CHAP. XV.



1 *Of lamenes*

THE first absurdity is of proportion Naturall, commonly called lamenesse, that is when any part or member is disproportionable to the whole body, or seemeth thorough the Ignorance of the painter to be wrested from his naturall place and motion: As in the roote of the Quire in *Peter-borough* Minster, you may see Saint *Peter* painted, his head very neere or altogether as bigge as his middle: and it is ordinary in country houses to see horsemen painted, and the rider a great deale bigger then his horse.

2 *Of locall distance.*

The second is of Landtskippe, or Local distance, as I haue seene painted a Church, and some halfe a mile beyond it the vicaredge; yet the Vicars chimney drawne bigger then the steeple by a third parte, which being lesse of it selfe, ought also to bee much more abated by the distance.

3 *Accidents of Time.*
Iud. 7.

The third absurdity is of accident of time, that is when wee fashion or attribute the proprieties of ancient times to those of ours, or ours to theirs: As not long since I founde painted in an Inne *Bethulia* besieged by *Holophernes*, where the painter, as if it had beene at Ostend, made his East and West batteries, with

with great ordinance & small shot playing from the walls, when you know that ordinance was not inuented of two thousand yeers after.

The fourth is in expressing passion or the disposition of the minde, as to draw *Mars* like young *Hippolitus* with an amiable or effeminate countenance, or *Venus* like an Amazon, or that same hotspurd *Harpalice* in *Virgil*, this proceedeth of too fencelesse and ouercold a iudgement.

4 In expressing the passion or disposition of the mind.

Qualis equos Threissa fatigat Harpalice.

The fift is of Draperie or attire, in not obseruing a *decorum* in garments proper to euery seuerall condition and calling, as not giuing to a King his Robes of Estate, with their proper furies and linings : To Religious persons an habire fitting with humilitie and contempt of the world; A notable example of this kinde I found in a Gentlemans hall, which was King *Salomon* sitting in his throne with a deepe lac'd gent'ewomans Ruffe, and a Rebatoe about his neck, vppon his head a blacke veluet Cap with a white feather; the Queene of Sheba kneeling before him in a loose bodied gowne, and a Frenchhood.

Aeneid. 1.

5 Of drapery

The sixt and last of shadowing, as I haue seen painted the flame of a candle, and the light therof on one side shadowed 3 parts: when there ought to haue bin none at all, because there is *unde quaque lumen*, which may cause a shadow but take none.

6 Of shadowing.

THE



THE
Second booke intreating of the true
ordering of all manner of water colors
and painting vpon glasse.

CHAP. I.



HAVING hitherto as
plainelie, as I could, giuen
you those directions I
haue thoughte most ne-
cessary for drawing with
the pen: I will shewe you
next the righte mingling
and ordering of your co-
lors, that after you can
draw indiffernt well (for before I woulde not haue
you know what colors meaneth) you may with more
delighte apparrell your worke with the liuely and
naturall beauty: and first of the choise of your grin-
ding stone and pencills.

*The choise of
your grin-
ding stone &
mullar.*

I like best the porphyrie, white or greene Marble,
with a muller or vpper stone of the same, cut verie
euen without flawes or holes: you may buy them in
London, of those that make toombs, they will laste
you

you youre life time, wearing very little or nothing: some vse glasse, but many times they gather vp their colours on the ground: others flates, but they with wearing (though neuer so hard at first) will kill all colours: you may also make you a mullar of a flat pibble, by grinding it smooth at a grindstone if you doe it handsomly, it is as good as the best: your great muscle shells commonly called horse muscles are the best for keeping colors, you may gather them in Iuly about riuer sides, the next to these are the small muscle shells washt and kepte very cleane.

Choose your pencils by their fastnes in the quils, and their sharp points, after you haue drawne and wetted them in your mouth; you shall buy them one after another for eight or ten pence a dozen at the Apothecaries.

*Of the Seuerall Gummes that are used
in grinding of water colors.*

CHAP. 2.

Gumme Arabick.



THE first and principall is gumme Arabick, choole it by the whitenes, clearenes, & the britlenes of it being broken betweene your teeth: for then it is good, take it and lay it in very faire water vntill it bee quite resolved

solued, and with it grind your colors: you may make it thinne or thick as all other gummes, at your pleasure, by adding & taking away the water you put to it.

2 *Gumma Hederae, or of the Iuie.*

There is an other verie excellent gumme that proceedeth from the Iuie which you shal get in this manner: find out first an Oake, or house that hath a great branch of Iuie climbing vp by it, and with an axe cut it asunder in the midst, and then with your axe head bruisse both the ends, & let it stand a month or thereabouts, at what time you shall take from it a pure & fine gum like an oyle, which issueth out of the ends: take it off handsomly with a knife or spoon, and keep it in a viall; it is good to put into your gold size and other colors for threee respects, first it alaies the smell of the size, secondly it taketh awaie the bubbles that arise vpon your gold size, and other colors, lastly it taketh awaie the clammines, and fatnes from your other colors: there is moreouer great vse of it in the confection of pommander.

3. *Gumme lake.*

Gumme lake is made with the glaire of egges, strained often and very short, about March or April: to which aboute the quantity of a pinte you muste put two spoonful of honey, and as much of *Gumma Hederae* as a hasell nut, and foure good spoonefuls of the strongest woort you can come by: then straine the again with a spoong, or peece of wool, so fine as you can, & so long til that you see them runne like a fine
and

and cleare oyle, keepe it then in a cleane glasse, it wil grow hard, but you maie resolue it again with a little cleane water, as you doe gumme Arabeck: it is moreover an excellent vernish for any picture.

4 Gumme Armoniack.

Take Gumme Armoniack, and grind it with the iuice of Garlicke so fine as maye bee, to which put 2. or three drops of weake Gumme Arabeck water, and temper it so that it bee not too thick, but that it may runne well out of your penne, and write therewith what you wil, and let it drie, and when you meane to guild vpon it, cut your gold, or siluer according to the bignes of the size you haue laid; and then set it with a peece of wool in this manner: firste breath vpon the size, and then laye on your gold vpon it gently taken vp, which presse downe hard with your peece of wool, and then let it well drie, being dried, with a fine linnen cloath strike off finely the loose gold: then shal you find al that you drew very faire gold, and as clean as you haue drawn it, though it were as small as any heare: it is called gold Armoniack, and is taken many times for liquid gold.

*Of gilding or the ordering of gold
and siluer in water colors.*

CHAP. 3.

YOU maie guild onely with gumme water, as I wil shew you, make your water good and stiffe, and laye it on with your pencil where you woulde guild, then take a cushion that hath

H

smooth

smooth leather, and turn the bottom vpward, vpon that cut your gold with a sharp knife; in what quantity you will, & to take it vp draw the edge of your knife finely vpon your tongue, that it may be onely wet: with which, doe but touch the very edge of your gold, it will come vp and you may lay it as you list; but before you lay it on, let you gumme bee almost drie, otherwise it will drowne your gold: and being laid, presse it downe harde with the skut of an hare, afterward burnish it with a dogges tooth, or bores tush.

I call burnisht gold, that māner of gilding which wee ordinarily see in old parchment & Masse books, (done by monks and priests who were very expert heerin, as also in laying of colors, that in bookes of an hundred or two hundred yeares old you may see the colors as beautifull and as fresh as if they were done but yesterday,) it lieth commonly Embossed that you maie feelee it, by reason of the thicknes of the ground or size, which size is made in this māner.

Take 3 partes of *Bole Armoniack*, and 4 of fine chalke, grind them together as smal as you can with cleane water, 3 or 4 times, and euery time let it drie, & see it be clean without grauil or grit, & then let it be throwghly Drie, then take the glaire of egges and straine it as short as water; grind then your bole and chalk therwith, & in the grinding put to a little gum *Hadera*, & a little ear wax, to the quātitie of a fitch, & 5 or 6 chiues of saffrō, which grind to gether as small as you can possible, & then put it into an ox horn, & couered close let it rot in hot horse dung, or in the earth

earth, for the space of 5 or 6 weekes, then take it vp and laie it in the aire, (for it will haue an ill fauor) & vse it at your pleasure.

To set gold or siluer.

TAKE a peece of your Gūme and resolue it into a stiffe water, then grind a shiue of saffron there with, and you shal haue a fair gold: when you haue set it, and you see that it is throroughly drie, rub or burnish it with a dogs toothe.

To make liquid gold or siluer.

TAke 5 or 6 leaues of gold or siluer, and laie it vp on a cleane Porphiry, marble stone, or pane of glasse, and grind it with strong water of *gumme Lake* and a pretty quantity of greate salte, as small as you can, and then put it into a cleane vessel, or viall that is well glazed: and put thereto as much faire water as will fill the glasse or vessell, to the end it may dissolue the stiffe water you ground with it, & that the gold may haue room to go to the bottom let it stand so three or foure houres, then powre out that water, and put in more, vntill you see the gold clean washed: after that take clean water, which put therto with a little *Sal Armoniack* & great salt, so let it stand three or foure daies in some close place: the must you distil it in this māner, take a peece of glovers leather, that is very thin, & pick away the skinny side, and put your gold therein binding it close, the hāging it vp, the *Sal Armoniack* will fret away, and the gold remain behind, which take, and when you will vse it, haue a little glaire water in a shell by you, wherein dip your pensill, taking vp no more gold then you shall vse,

Of all sorts of Reds, and their
Tempering.

CHAP. III.

Of Vermilion.



Our fairest and most principall Red is Vermilion, called in Latine *Minium*, it is a poison, and found where great store of quicksiluer is: you must grind it with the glayre of an egge, and in the grinding put too a little clarified hony, to make his colour brighte and perfect.

Sinaper Lake.

Sinaper (in Latine called *Cinnabaris*, or *Synopsis* of the City Synope in *Pontus*, where it was first inuented) maketh a deepe and beautifull red or rather purple, almost like vnto a red Rose: the best was woont to be made, as *Dioscorides* saith, in Libia of Brimstone and quicksiluer burnt a long time to a small quantity: and not of the blood of the Elephant and Dragon as *Plinie* supposed: you shall grind it with Gum Lake and Turnsoile water, if you will haue it light, put to a little Ceruse, and it will make a bright crimson, if to diaper put to only Turnsoile water.

Synaper Top's.

Grinde your Tops after the same manner you doe your lake, they are both of one nature.

Red.

Lib. 33.
cap. 7.

A bright
Crimson.

Red Lead.

Red lead, in Latine is called *Syricum*, it was wont to be made of Ceruse burnt; which grinde with a quantity of Saffron, and stiffe gumme lake: for your saffron will make it orient and of a Marigolde colour.

Turnesoile.

Turnsoile is made of old linnen ragges died, you shall vse it after this manner: lay it in a saucer of vinegar, and set it ouer a chafing dish of coales and let it boyle, then take it of and wring it into a shell, and put vnto it a little gum Arabeck, letting it stand 3 or 4 howrs, till it be dissolued: it is good to shadow carnations, and all yeallowes.

Roset.

You shall grind your Roset with Brasill water, and it will make you a deepe and a faire purple, if you put Ceruse to it, it maketh a lighter, if you grinde it with Litmose, it maketh a faire violet.

*A purple.
A faire
violet.*

Browne of Spaine.

Grind your Browne of Spaine with Brasill water, and if you mingle it with Ceruse it maketh an horse flesh colour.

*Horseflesh
colour.*

Bole Armoniack.

Bole Armoniack is but a faint colour, the chiefest vse of it, is, as I haue said in making a size for burnisht gold.

of

Of Greenes and their tempering.

CHAP. V.

Greene Bice.

Ake green Bice, and order it as you do your blew bice, and in the selte same manner: when it is moiste and not thorough drie, you may diaper vpon it with the water of deepe greene.

Vert-greace.

Vertgreace is nothing els but the rust of brasse, which in time being consumed and eaten with Tallow turneth into greene, as you may see many times vpon fowle candlestickes that haue not beene often made cleane, wherfore it hath the name in latine *Aerugo*, in French *Vert de gris*, or the hoary greene: to temper it as you ought, you must grind it with the iuice of Rue, and a little weak gum water, & you shall haue the purest greene that is; if you will diaper with it, grind it with the lie of Rue, (that is, the water wherin you haue sod your Rue or Herbgrace) and you shall haue an hoary greene: you shall diaper or Damaske vpon your vertgreace green, with the water of sapgreene.

Verditure.

Take your verditure, and grind it with a weak gum Arabeck water, it is the faintest and palest green that is, but it is good to veluet vpon black in any manner of drapery.

Sappe greene.

Take Sapp greene and laie it in sharpe vineger all night, put to it a little Alom, to raise his colour, and you shall haue a good green to diaper vpon all other greenes.

*Of Whites and their tempering.**Venice Ceruse.*

Your principall white is Ceruse, called in Latine *Cerussa*, by the Italian *Biacea*. *Vitruuius* teacheth the making of it, which is in this manner. The Rhodians (saith he) vse to take the parings of vines or any other chips, and lay them in the bottoms of pipes or hogshheads, vpon which they powr great store of vinegar, and then laie aboue many sheets of lead, and so still one aboue another by rankes till the hogshheads are full, then stoppe they vp againe the hogshheads close, that no ayr may enter: which againe after a certayne time being opened, they find betweene the lead and chips great store of Ceruse: it hath beene much vsed (as it is also now adaies) by women in painting their faces, at whome *Martial* in his merry vaine skoffeth, sayings; *Cerussata timet Sabella Solem*. *Actius* saith it beeing throughly burnt, it turneth into a faire Red, which he calleth *Syriceum*, grinde it with the glair of eggs, that hath lien rotting a month or two vnder the ground, and it will make a most perfect white.

*Epigram.
lib. 2.*

White Lead.

White Lead is in a manner the same that Ceruse is, saue that the Ceruse is refined & made more pure, you shall grinde it with a weake water of gum Lake, and let it stand 3 or 4 daies, Rolet and Vermilion maketh it a fair Carnation.

*A fair Car-
nation.
Spanish*

Spanish white,

There is an other white called Spanish white, which you may make your selfe in this manner; take fine chalk and grind it with the third part of Alome in faire water, till it be thick like pap, then roule it vp into balls, letting it lie til it be dry, when it is drie, put it into the fire, and let it remayne till it bee red whor like a burning coale, and then take it out and let it coole: it is the best white of al others to lacc or garnish beeing ground with a weake Gumme water.

● *of all manner of blewes and their ordering.*

CHAP. 7.

Blew Bice.

TAke fine Bice and grind it vpon a clean stone, first with cleane water as smal as you can, then put it into an horn and wash it on this manner: put vnto it as much faire water as will fill vp your horne, and stirre it well, then let it stand the space of an houre, & all the bice shall fall to the bottom, and the corruption will fleet about the water, then powre away the corrupt water, and put in more cleane water, and so vse it foure or fve times, at the last powr awaie all the water, & put in clean water of Gum

gum Arabeck not to stiffe, but s^o what weak, that the bice may fall to the bottō, thē powre away the Gum water clean frō the bice; & put to another clean; water and so wash it vp, and if you would haue it rise of the same color it is of, when it is drie temper it with a weake gum water, which also will cause it to rise and swell in the driing, if a most perfect blew, and of the same color it is being wet, temper it with a stiffe water of gumme lake, if you would haue it light, grind it with a little ceruse, or the muting of an hawk that is white, if you will haue it a most deepe blew, put thereto the water of litmose.

Litmose blew.

Take fine litmose and grind it with ceruse, and if you put to ouermuch Litmos, it maketh a deep blew: if ouermuch ceruse and lesse litmos, it maketh a light blew: you must grind it with weake water of gumme Arabeck.

Indebaudias.

Take Indebaudias and grind it with the water of Litmose, if you will haue it deepe; but if lighte, grind it with fine ceruse, and with a weake water of gumme Arabeck, you shall also grind your English *Indebaudias*, after the same manner, which is not fully so good a cullour as your indebaudias is you must: Diaper lighte and deepe vpon it, with a good litmose water.

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Florey blew.

Take Florey blew, and grinde it with a little fine Roset, and it will make a deep violet, and by putting in a quantity of Ceruse it wil make a light violet: with 2 parts of Ceruse, and one of red lead, it maketh a perfect Crane colour.

Korck or Orchal.

Take fine Orchal and grinde it with vnsleckt lime and vrine, it maketh a pure violet: by putting to more or lesse lime, you may make your violet light, or deep as you will.

*To make a blew water to Diaper vpon
all other blews.*

Take fine Litmus and cut it in peeces, when you haue done, lay it in weak water of Gum Lake, and let it ly 24 howrs therein; and you shall haue a water of a most perfect azure, with which water you may diaper and damaske vpon all other blews, and sanguines to make them shew more fayr and beautifull: if it begin to dry in your shell, moisten it with a little more water, and it will be as good as at the first.

Of Yealoves and their mingling.

CHAP. VIII.

Orpiment.



Orpiment called in Latine *Arsenicum*, or *Auripigmentum*, (because being broken it resemblith Gold for shining, and colour) is best ground with a stiffe water of Gumma Lake, and with nothing els: because

because it is the best colour of it selfe, it will ly vpon no greene: for all greens, white lead, Red lead, and Ceruse staine it: wherefore you must deepen your colours so, that the Orpiment may be the highest, in which manner it may agree with all colours: it is said that *Caius* a certayne couetous Prince caused greate store of it to be burned, and tried for golde, of which he found some, and that very good; but so small a quantity, that it woulde not quite the coste in refining.

Masticot or General.

Grind your Masticot with a small quantity of Saffron in Gum water, and neuer make it lighter then it is; it will endure and ly vpon all colours and mettals.

Pinke yealow.

You must grind your Pinke, if you will haue it sad coloured, with saffron; if light, with Ceruse: temper it with weake gum water and so vse it.

Oker de Luke.

Take fine Oker de Luke, or Luce, and grind it with a pure brasil water: it maketh a passing hayr-colour, and is a naturall shadow for gold.

Vmber.

Vmber is a more sad colour, you may grind it with Gumme water or Gumme Lake: and lighten it at your pleasure with a little Ceruse, and a chieue of saffron.

Of blacks and their ordering.

CHAP. 9.

Harts horne.

The best black to make your Sattens and veluets, in water colours, is the Harts horne burnt to a coale: you may buy it at euery Apothecaries (for it hath many vses in medicines) buy the blackest, and if there be (as commonly there is) any white, or ouerburnt peeces it it, pick them out cleane, for they wil infect the rest: for a shift you may burne an old combe, fanne handle, or knife haft, or any thing els that is iuory, they wil make a very good black in water, but in oyle the best of all others; or you may burne a manchet to a coale, which wil serue for a need.

Ordinary lamp black.

Take a torch ora link, and hold it vnder the bottom of a latten basen, and as it groweth to bee furd and black within, strike it with a feather into some shell or other, and grind it with gumme water.

*To work with mettals.**Tinglas.*

Grind Tinglas with weak gumme water as smal as you can, and when it is drie, and you haue wroughte it, burnish it with a Dogs tooth, and it will bee like Mettal.

Antemonie.

Grind your Antemony as your Tinglasse, and bur-
nish it in the same manner.

Eler-glasse.

Grind your Elerglas with stiffe water of Gumme
Arabeck :for it is so brittle that otherwise it will not
abide, and order it as you doe your other Mettals; it
will agree with all colours sauing Orpiment.

*Of making inkes of sundry colours .**Greene inke.*

Take vertgrease and grind it with the iuice of a rota-
ten apple with a little saffron , when you haue done
put it into a clean Horn and let it stand a good while,
vntill the best fleet aboue, which take and put into a
shell, vntill you haue occasion to vse it.

The best red inke.

Grind vermilion with the glaire of an egge, or
stiffe gumme Arabeck water, putring hereto a little
saffron, and so write with it out of a shell, if it be drie,
you may soften it by adding a little more water.

yealow inke.

Take saffron rust, or the seedes, and grind it on
your painters stone, halfe an hower, with the yolke of
an egge: if you wil haue it a light yealow, adde ther-
to a little Ceruse.

Blew

Blew Inke.

Take Indico and grind it with gumme water, and put thereto blanck-bloome, as much as will quicken & and perfect his cullor.

White Inke.

Grind ceruse on a stone with Gumme water, and you haue done.

Sanguine Inke.

Take turne soyl and steepe it in gumme water, and after a while wring it into a shel, and so write with it.

To keepe inkes from freezings.

Put into any of them Camphire about the quantitie of a fitch, and stirre it well about,

To make a golden water.

Take greene vitriol, Sal Gemma, and Sal Armoniack, and put them together: so that their bee the quantitie of an ownc; and seeth them in a quart of white wine, vntill it be halfe wasted awaie, and when it is coole worke withall:

To make an excellent greene water.

Take red vinegar and the Vrine of a Ramme, the filing of brasse and an ownc of vert-greace, with the gall of a Bul, & boile them together the space of going halfe a mile: and then put thereto a prety quantity of Alome, & let it stand, 7. or 8. daies, and so worke with it.

Thus briefly haue I taught you your colors, and the manner of ordering or tempering the same: for the mixtnre of some one cullor of many, (as a bay or Sorrell in a horse) you must haue some time to doe it by your owne discretion and obseruation: for it wold bee too tedious a peece of worke to giue directions
for

all, when as a man may of one color alone, make a-
boue a thousand species, or kindes: wherefore when
you come to a compounded color, (like the afore-
said) which you can very hardly make, mingle those
colors which you know come neereſt vnto it, confer
and laie them to the life, adding or taking awaie as
you ſee cauſe.

*The manner of Annealing and painting
upon glaſſe.*

CHAP. I.



S there haue been of late years ma-
ny artes inuented, and others, that in
a manner laie rude and vnregarded,
through the industry of our times
growne to ful perfection: So I make
no question on the other ſide, but di-
uers by our Idlenes & negligence are vtterly loſt and
forgotten; that I may alledge one in ſtead of the reſt,
I would know what Lapidarie, or any els could ſhew
mee the art of caſting that marble, whereof wee ſee
many fayre and beautifull pillars in Weſtminſter,
Lincolne, Peterborough; &c, and in many places
whole pauements, as in Saint Albanes Abbey, Gor-
mancheſter, &c; ſurely I think not any: And what hath
been in greater requeſt then good workmanſhip in
glaſſe, when ſcarce now any maie bee found (excepte
ſome few in Londō, and they perhaps dutchmen to)
that haue but the ordinary ſkill of annealing and
laying

laying their colours : verily I am perswaded, if our forefathers had knowne ,how little we regarded either their deuotion or cost in painting glasse windowes,they would haue spared their mony,to some better purpose; nay if we would in many places imitate them so farre,as but to allow our Churches and Chappels glasse,it were wel; where many times you shall see whole panes(whereof some haue carried the names of their deuout and religious founders; others the royal coates either of our auncient kinges of this land, their Allies, or of the benefactors and Lords of that place, monuments many times of great importance,) for want of repaire partly beene beaten downe by the weather, partly by ouer precise parsons & vicars,(as one in Northhamptonshire did in his chauncel, the armes of King Edward the 3. and the dukes of Yorke and Clarence,taking them for images,) and the windowes stopt vp with strawe and sedge,or damd vp quite,a regard I confes hath been had of these abuses, but I feare me a great deal too late .

The best workmanship that may be seene in England at this daie in glasse,is in K. Colledge Chappel in Cambridge ,containing (as they say) the whole history both of the old and new testament ,the next to that in Henry the seuenths Chapel at Westminster the one finished,the other wholly builte by the said religious King. There are many good peeces els in diuers other places , as Canterbury ,Lincolne, &c: vnto which being drawne by their own antiquitye, and loue of arte, I haue in a manner gone

gone in pilgrimage, neither, as I thought, loosing my labour, since I can shew almost 8 hundred feuerall auncient coates, which out of old and decaied windows, I haue entertained from the iniury of rude hands, and fowle weather.

CHAP. 2.

THere be six principal colors in glasse; which are Or, or yealow Argent, or white, Sables, Azure, Gules, and Vert, black, blew, red, and Greene.

How to make your Or, or yealow upon glasse.

Your yealow is made in this manner, take an olde groate, or other peece of the purest and best refined siluer that you can get, then take a good quantitie of Brimstone, and melt it, when ye haue done, put your siluer into the Brimstone melted; and take it forth againe with a pair of pliers or smal tongues, and lighte it at the fier, holding it in your tongues vntil it leaue burning: then beate your siluer in a brazen Mortar to dust, which dust take out of the mortar, and laying it on your Marble stone grind it (adding vnto it a smal quantity of yelow Oker) with gum Arabeck water and when you haue drawne with your pencill what you will, let it of it selfe thoroughly drie vpon the glasse.

Another fair Gold or yealow upon Glasse.

Take a quantity of good siluer, and cut it in small peeces: *Antemonium* beaten to powder, and put them together in a crucible or melting cruse, and set them

on the fire, well covered round about, with coales for the space of an houre: then take it out of the fire, and cast it into the bottom of a candle stick, after that beat it small into powder, and so grind it.

Note when as you take your siluer as much as you meane to burne, remember to waie againste it six times as much yealow oaker as it waieeth, and seauen times as much of the old earth, that hath been scraped of the annealed worke, as your siluer waieeth: which after it is well ground, put altogether into a pot and stir it well, and so vse it, this is the best yealow.

Argent or white.

Argent or siluer, is the glasse it self, and needeth no other colour, yet you may diaper vpon it with other glasse or Christal, beaten to powder and ground.

Sables.

Take Iet, and the scales of Iron, and with a wet feather when the smith hath taken an heat, take vp the scales that fly from the Iron; which you may doe by laying the feather on them, & those scales that come vp with the feather, you shall grind vpon your painters stone, with the Iet and Gumme water, so vse it as your gold aboue written.

Azure, Gules, and Vers.

These three colors are to be vsed after one manner you,

you may buy or speak vnto some merchant you are acquainted withall, to procure you what coloured beads you will, as for example, the most & perfectest red beads, that can be come by, to make you a faire red, beat the into powder, in a brazē Mortar, then buy the gold smithes red Ammel, which in any case let be very transparent and through-shining, take of the beades two pearls, and of the Ammel one part, and grind them together as you did your siluer, in the like sort may you vse al the other cullors.

Another faire red vpon glasse.

Take a quantity of Dragons blood, called in Latin *Sanguis Draconis*, beate it into fine powder in a mortar, and put it in a linnen cloath, & put thereto strōg Aquauitæ, and strain them together in a pot, and vse them when you need.

An other excellent greene vpon glasse.

Take a quantitie of vertgrease and grind it very well with Turpentine, when you haue done put it into a pot, and as often as you vse it warme it on the fire.

To make a faire carnation vpon a glasse.

Take an owncce of Tinne-glas, one quarter of gum of Iet three ownnces, of Red oker five ownnces, & grind them together.

Another black

Take a quantity of iron scales, and so many copper scales and waie them one against an other, and half as much Iet, and mix them well together.

Before you occupy your scales, let them be stamped small, and put them into a cleane fire shouel, and set them vpon the fire till they be red whot, and they will be the better.

Another Carnation.

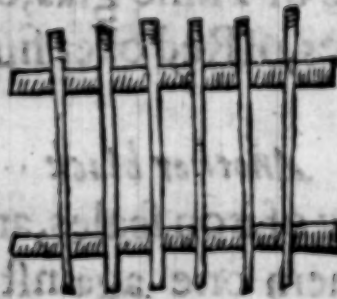
Take a quantity of let, and halfe as much siluer scum, or glasse tinne, & halfe as much of Iron scales, a quarter as much of gum, and as much red chalk as all these do way, and grind it.

The manner of annealing your glasse, after you haue laid on your colours.

Take bricke, and therewith make an ouen fowre square, one foote and a halfe high in this manner:



and raise it a foote and a halfe high, when you haue done, laye little barres of Iron ouerthwart it thus, three or fowr, or as many as will serue, then raise it one foote and a halfe more, then is it high enough: when you purpose to anneale, Take a plate of Iron made fitt for the afore said ouen, or for want thereof, take a



blew stone, such as they make hauer or oaten cakes vpon

upon which being made fit for the aforesayd ouen,
lay it vpon the crosse barres of Iron: that done, take
fleeke lime & sift it through a fine siue, into the ouen,
open the plate or stone, and make a bed of lime, then
lay your glasse which you haue wrought and drawne
before, vpon the said bed of lime; then sift vpon the
said glasse: another bed of lime, & vpon that bed lay
other glas, and so by beds you maie lay as much glas
as the ouen wil containe: prouiding alwaies that one
glasse touch not another. Then make a softe fire vn-
der your glasse, and let it burn til it be sufficiently an-
nealed: it maie haue (you must note) too much or too
little of the fire, but to prouide that it shal be wel, you
shal doe as followeth.

To know when your glasse is well annealed.

Take so many peeces of glasse, as you purpose to
lay beds of glasse in your ouen, or furnace, and draw
in colors what you will vpon the said peeces, or if
you wipe them ouer with some color, with your fin-
ger onely it is enough: & lay with euery bed of your
wrought and drawne glasse one of the said peeces of
glasse, which are called watches, & when you think
that they are sufficietly annealed with a pair of pliers
or tongs, take out the first watch which is the lowest,
& next to the fire, and laie it vpon a boord vntill it be
cold: then scrape it good and harde with a knife, and
if the color goeth off; it hath not enough of the fire, &
if it hold it is wel annealed.

When you woulde occupie any oiled color in
glasse, you shal once grind it with gumme water, &
then

then temper it with spanish Turpentine, and let it drie as neere the fire as may bee, then is it perfect.

Other notes worthy of the practise and obseruation.

Colours for a table worke.

Take Indie blew, and grind it vpon your stone, or glasse, and gumme it wel: and laie it vpon your table worke as you thinke good, striking your blew ouer with linseed oyl vpon which after it hath dried a little, lay on lesse gold or siluer, and it will be faire.

For a faire Red.

Take faire black adding thereto a small quantity of *Sanguis Draconis*, and grind it vpon a stone with the fattest oyl you can get, afterward grind it as drie as you can, and put it into a shell: after you haue laid it let your color dry, and strike it ouer with linseed oyl, after that laie on you siluer.

For Greene.

Take spanish greene, and grind it as you ground your black, and laie it: you may first shadow it with blew, and so lay your greene vpon it: and after letting it Drie in the sunne, lay on the green or siluer as is before mentioned.

For a gold cloath.

Take your carnation and deep it is as you would deepe with black, and strike it thin with oile, and after lay your gold on, and it will bee faire.

To write vpon iron.

Take vertgrease, greene copperæs, vinegar, and roch Alome: and temper them together: and melte wax vpon your sword or knife, vpon which draw or write

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write what you will.

Having thus (friendly reader) for thy behoof plaide both the Painter and Glasier at once, I craue pardon if in so deepe a skill I haue not satisfied thee in all things: what I haue omitted it is not through Ignorance, but because I would not trouble thee a learner (as I imagine) with ouer busie or tedious conclusions; hauing long since lerned that lesson of *Horace*. *Quicquid praecepit brevis esto.* &c. And thus not doubting of thy good will for my paines, such as they are, I throw away my Apron, and bid thee heartily adew.

FINIS.

This example wants pag.



22, lin, 2. refer it thither.